

Amendments to the Specification:

At page 1, please replace the title of the invention with the following title:

“METHOD AND EMBEDDED SYSTEM FOR IMPLEMENTING AND
SECURING A TYPED DATA LANGUAGE IN A COMPUTER SYSTEM”

Please replace paragraph [0060] with the following amended paragraph:

[0060] Associated with these areas are storage areas, respectively *4a* ~~et~~and *5a*, specific to the invention, which will hereinafter be called "*Typing*" areas. According to one of the aspects of the invention, the storage areas *4a* ~~et~~and *5a*, are designed to store type information elements (3 bits long in the example described) associated with the data stored in the areas *2a* ~~et~~and *3a*, respectively, in storage locations that correspond one-to-one with the storage locations of these areas. The logical organization of these storage areas is the type known as a "stack," as mentioned. Also, they are represented in the form of arrays with the dimensions $c \times l$, with c being the number of columns and l being the number of lines, i.e., the "height" or level of the stack (which can vary with each step in the execution of a "p-code"). In the example, $c=4$ for the "data area" *2a* ~~et~~and the "local variable area" *3a* (each column corresponding to a storage position of 4 bytes, or 32 bits in total), and $c=3$ for the "*typing*" areas, *4a* ~~et~~and *5a*, (each column corresponding to a 1-bit storage position). In Fig. 1A, the number of lines represented (or level number: 1 to 32 maximum in the example described) is equal to 2 for all of the storage areas. Each of the storage areas, *2a* ~~et~~to *5a*, therefore constitutes an elementary stack.

Please replace paragraph [0066] with the following amended paragraph:

[0066] The elements common to Fig. 1A have the same numeric references and will be described again only as necessary. Only the letter value associated with the numeric values is changed. It is identical to that in the corresponding figure, or b in the case of Fig. 1B, so as to characterize the successive modifications of the contents of the storage areas. The same goes for the subsequent figures 1C ~~et~~to 1G.

Please replace paragraph [0070] with the following amended paragraph:

[0070] A reference object is created in the "JVM Stack" : for example the (arbitrary) four byte value "1234" is placed in the storage positions of the ~~"local variable area"~~ "data area" (level 1). Since it is a reference type object, the value "100" (in bits) is placed in the corresponding "Typing" area ~~5b4b~~ (level 1).

Please replace paragraph [0074] with the following amended paragraph:

[0074] The "opcode" has as an operand a value that must be of the "Reference object" type. The verification of the "Typing" area (in state ~~4a4b~~) indicates a correct type. The execution is therefore possible.